

Application/Control Number: 09/708,944

Page 2

Art Unit: \*\*\*

CLAIMS PTO

L ELLIS

5/16/06

Art Unit: \*\*\*

1. (Currently amended) A computer-implemented method for adjusting a retail location-product specific selling profile for a product, the computer-implemented method including:
- collecting on machine-readable memory a multitude of retail location-product specific selling profiles that record daily or more frequent historical data for sales, the historical data reflecting at least random variations in sales, systematic variations in sales due to day of the week and day of the year, and systematic variations in sales due to any promotions benefiting the retail location;
- maintaining on machine-readable memory a retail location promotions calendar that includes historical data that tracks promotion of the product at the retail location by effective dates and by type of promotion and a corresponding estimated systematic variation in sales caused by the type of promotion;
- repeatedly for a plurality of products across a plurality of retail locations,
- retrieving from a machine-readable memory at least one the retail location-product specific selling profile for a selected historical period; that includes accumulated daily or more frequent historical data for at least one product;
- accessing a the retail location promotions calendar data and identifying any promotions that benefited the retail location during the selected historical period; that includes historical data that tracks promotion of the product at the location; and
- automatically adjusting the historical data in the retail location-product specific selling profile to correct for one or more reflect the estimated systematic variation in sales caused by the promotions of the product at the retail location; and
- storing to machine-readable memory the automatically adjusted historical data.

Art Unit: \*\*\*

2. (Original) The method of claim 1, further including storing one or more adjusted selling profiles.
3. (Previously presented) The method of claim 1, wherein the promotions calendar identifies advertising of the product.  

4. (Previously presented) The method of claim 1, wherein the promotions calendar identifies a preferential display of the product.
5. (Previously presented) The method of claim 1, wherein the promotions calendar identifies a price reduction applied to the product.
6. (Previously presented) The method of claim 1, further including adjusting the historical data in the retail location-product specific selling profile to correct for seasonal selling effects.
7. (Previously presented) The method of claim 6, wherein the adjusting to correct for seasonal selling effects includes ratioing the retail location-product specific selling profile with an aggregate profile that includes historical data for non-promoted products.
8. (Original) The method of claim 7, wherein the non-promoted products are non-seasonal or basic products.
9. (Original) The method of claim 7, wherein the non-promoted products are seasonal products.
10. (Currently amended) The method of claim 1, further including adjusting the retail location-product specific selling profile to correct for special selling days which impacted the historical data.
11. (Original) The method of claim 10, wherein the special selling days include one or more days preceding Valentines Day, Mothers Day, Memorial Day, the Fourth of July, Labor Day, Thanksgiving or Christmas.

Art.Unit: \*\*\*

12. (Original) The method of claim 10, wherein the special selling days include one or more days following Thanksgiving or Christmas.

13. (Original) The method of claim 10, wherein the special selling days include back to school days.

14. The method of claim 1, further including adjusting the reference selling profiles to correct for

15. (original) The method of claim 1, wherein the reference selling profiles include daily or more frequent historical data for locations.

16. (Previously presented) The method of claim 1, wherein the daily or more frequent historical data includes a stock on hand indicator, further including adjusting the historical data to correct for a stock out at the retail location .

17. (Previously presented) The method of claim 16, wherein the adjusting to correct for the stock out includes evaluating the historical sales data and the stock on hand indicators for the location and correcting for lack of sales attributable to failure to display stock on hand.

18. (Previously presented) The method of claim 16, wherein the adjusting to correct for the stock out includes evaluating the historical sales data and the stock on hand indicator for the location and filling in sales for days preceding first dates of sales for the location.

19. (Previously presented) The method of claim 16, wherein the adjusting to correct for the stock out includes evaluating the historical sales data and the stock on hand indicator for the location and correcting for outlying sales at the location attributable to false indications of stock on hand.

20. (Previously presented) The method of claim 16, wherein the adjusting to correct for the stock out includes evaluating the historical sales data and the stock on hand indicator for the location and filling in sales for days following final dates of sales, after excluding outlying sales at the locations.

Art Unit: \*\*\*

21. (Previously presented) The method of claim 3, wherein the daily or more frequent historical data includes a stock on hand indicator, further including adjusting the historical data to correct for a stock out at the retail locations.

22. (Previously presented) The method of claim 4, wherein the daily or more frequent historical data includes a stock on hand indicator, further including adjusting the historical data to correct for a stock out at the retail locations.

23. (Previously presented) The method of claim 5, wherein the daily or more frequent historical data includes a stock on hand indicator, further including adjusting the historical data to correct for a stock out at the retail locations.

24. (original) The method of claim 1, wherein casual factors historical data is linked to the reference selling profiles and retrievable for use in one or more adjusting steps.

25. (Currently amended) A computer-implemented method for adjusting a retail location-product specific selling profile for a product, the computer-implemented method including:

collecting on machine-readable memory a multitude of retail location-product specific selling profiles that record daily or more frequent historical data for sales, the historical data reflecting at least random variations in sales, systematic variations in sales due to day of the week and day of the year, and occasional variations in sales due to a stock out condition at the retail location;

repeatedly for a plurality of products across a plurality of retail locations,  
retrieving at least one retail location-product specific selling profile that includes accumulated daily or more frequent historical data for at least one product;

wherein the historical data includes a stock on hand indicator, adjusting the retail location-product specific selling profile to correct for a stock out; and

storing to machine-readable memory the automatically adjusted historical data.

Art Unit: \*\*\*

26. (Previously presented) The method of claim 25, wherein the adjusting to correct for the stock out includes evaluating the historical data and the stock on hand indicator and correcting for lack of sales attributable to failure to display stock on hand.

27. (Previously presented) The method of claim 25, wherein the adjusting to correct for the stock out includes evaluating the historical data and the stock on hand indicator and filling in sales for days preceding first dates of sales for the locations.

28. (Previously presented) The method of claim 25, wherein the adjusting to correct for stock out conditions includes evaluating the historical data and the stock on hand indicator and correcting for outlying sales at the locations attributable to false indications of stock on hand.

29. (Previously presented) The method of claim 25, wherein the adjusting to correct for the stock out includes evaluating the historical sales data and the stock on hand indicators for the locations and filling in sales for days following final dates of sales, after excluding outlying sales at the locations.

30. (Previously presented) The method of claim 25, wherein the stock out is corrected using average sales levels.

31. (Previously presented) The method of claim 25, wherein the stock out is corrected using profiled sales levels.

32. (Original) The method of claim 25, wherein a selection among types of out of stock corrections requires no user selection.

33. (Original) The method of claim 25, wherein a selection among types of out of stock corrections is made by a user.

Art Unit: \*\*\*

34. (Withdrawn) A computer-implemented method for setting location distribution shares, comprising:

retrieving daily or more frequent historical data for locations for one or more reference products;

adjusting the historical data to correct for out of stock conditions at the locations; and

calculating location shares based on the corrected historical data.

35. (Withdrawn) The method of claim 34, wherein the adjusting to correct for stock out conditions includes evaluating the historical sales data and the stock on hand indicators for the locations and correcting for lack of sales attributable to failure to display stock on hand.

36. (Withdrawn) The method of claim 34, wherein the adjusting to correct for stock out conditions includes evaluating the historical sales data and the stock on hand indicators for the locations and filling in sales for days preceding first dates of sales for the locations.

37. (Withdrawn) The method of claim 34, wherein the adjusting to correct for stock out conditions includes evaluating the historical sales data and the stock on hand indicators for the locations and correcting for outlying sales at the locations attributable to false indications of stock on hand.

Art.Unit: \*\*\*

38. (Withdrawn) The method of claim 34, wherein the adjusting to correct for stock out conditions includes evaluating the historical sales data and the stock on hand indicators for the locations and filling in sales for days following final dates of sales, after excluding outlying sales at the locations.

39. (Withdrawn) The method of claim 34, wherein the out of stock conditions are corrected using average sales levels.

40. (Withdrawn) The method of claim 34, wherein the out of stock conditions are corrected using profiled sales levels.

41. (Withdrawn) The method of claim 34, wherein a selection among types of out of stock corrections requires no user selection.

42. (Withdrawn) The method of claim 34, wherein a selection among types of out of stock corrections is made by a user.

43. (Withdrawn) The method of claim 34, wherein calculating location shares further includes grouping products into groups sufficiently large to overcome random selling noise.

44. (Withdrawn) A computer-implemented method for setting location distribution shares, comprising:

retrieving daily or more frequent historical data for locations for one or more reference products;

adjusting the historical data to correct for causal events at the locations;  
and

calculating location shares based on the corrected historical data.

45. (Withdrawn) The method of claim 44, wherein the causal events include advertising of the reference products.

Art Unit: \*\*\*

46. (Withdrawn) The method of claim 44, wherein the causal events include a preferential display of the reference products.

47. (Withdrawn) The method of claim 44, wherein the causal events include a reduced price for the reference products.

48. (Withdrawn) The method of claim 44, wherein the causal events include one or more special selling days.

49. (Withdrawn) The method of claim 48, wherein the special selling include one or more days preceding Valentines Day, Mothers Day, Memorial Day, the Fourth of July, Labor Day, Thanksgiving or Christmas.

50. (Withdrawn) The method of claim 48, wherein the special selling days include one or more days following Thanksgiving or Christmas.

51. (Withdrawn) The method of claim 44, wherein the adjusting step further includes rationing the reference selling profiles with a general selling profile comprising historical data for non-promoted products.

52. (Withdrawn) The method of claim 51, wherein the non-promoted products include non-seasonal products.

53. (Withdrawn) The method of claim 51, wherein the non-promoted products include seasonal products.

54. (Withdrawn) The method of claim 44, further including adjusting to correct for stock out conditions by evaluating the historical sales data and the stock on hand indicators for the locations and correcting for lack of sales attributable to failure to display stock on hand.

Art Unit: \*\*\*

55. (Withdrawn) The method of claim 44, further including adjusting to correct for stock out conditions by evaluating the historical sales data and the stock on hand indicators for the locations and filling in sales for days preceding first dates of sales for the locations.

56. (Withdrawn) The method of claim 44, further including adjusting to correct for stock out conditions by evaluating the historical sales data and the stock on hand indicators for the locations and correcting for outlying sales at the locations attributable to false indications of stock on hand.

57. (Withdrawn) The method of claim 44, further including adjusting to correct for stock out conditions by evaluating the historical sales data and the stock on hand indicators for the locations and filling in sales for days following final dates of sales, after excluding outlying sales at the locations.

58. (Withdrawn) The method of claim 44, wherein the causal events at the locations comprise promotions, by location, of the reference product, further including adjusting the historical data to correct for stock out conditions

59. (Withdrawn) A computer-implemented method for setting location distribution shares, comprising:

- retrieving daily or more frequent historical data for locations for a plurality of reference products;
- adjusting the historical data to correct for product assortment variations among the respective locations; and
- calculating location shares based on the corrected historical data.

60. (Withdrawn) The method of claim 59, wherein the adjusting step further includes correcting for product assortment variations based on unit sales quantities.

61. (Withdrawn) The method of claim 59, wherein the adjusting step further includes correcting for product assortment variations based on dollar sales quantities.

Art Unit: \*\*\*

62. (Withdrawn) The method of claim 59, wherein the adjusting step further includes correcting for product assortment variations based on percentage sales quantiles.

63. (Withdrawn) The method of claim 59, further including storing one or more adjusted selling profiles.

64. (Withdrawn) The method of claim 59, wherein the plurality of reference products includes a number of products sufficiently large to overcome random selling noise.

65. (Currently amended) A computer-implemented method for generating a projected location specific-retail sales profile for a particular product, the computer-implemented method including:

collecting on machine-readable memory a multitude of retail location-product specific selling profiles that record daily or more frequent historical data for sales, the historical data reflecting at least random variations in sales, systematic variations in sales due to day of the week and day of the year, and systematic variations in sales due to any promotions benefiting the retail location;

maintaining on machine-readable memory a retail location promotions calendar that includes historical data that tracks promotion of the product at the retail location by effective dates and by type of promotion and a corresponding estimated systematic variation in sales caused by the type of promotion;

repeatedly for a plurality of products across a plurality of retail locations,

accessing at least one adjusted or unadjusted location specific-retail selling profile that includes accumulated daily or more frequent historical data for at least one product; and

projecting a future sales profile by adjusting the location specific-retail selling profile to reflect sales lift from one or more promotions planned for the product and entered in the retail location promotions calendar; and

storing to machine-readable memory the automatically adjusted historical data.

Art Unit: \*\*\*

68. (Previously presented) The method of claim 67, further including scaling historical data for the truncated location specific-retail selling profile so that the scaled sales profile projections sum to 1.0.
69. (Previously presented) The method of claim 65, wherein the promotions have starting dates and ending dates and the starting dates and the ending dates are used in adjusting the location specific-retail selling profile.
70. (Previously presented) The method of claim 65, wherein the promotions include advertising of the product.
71. (Previously presented) The method of claim 69, wherein the promotions include advertising of the product.
72. (Previously presented) The method of claim 65, wherein the promotions include a preferred display of the product.
73. (Previously presented) The method of claim 69, wherein the promotions include a preferred display of the product.
74. (Previously presented) The method of claim 65, wherein the promotions include a reduced price for the product.

Art Unit: \*\*\*

68. (Previously presented) The method of claim 67, further including scaling historical data for the truncated location specific-retail selling profile so that the scaled sales profile projections sum to 1.0.

69. (Previously presented) The method of claim 65, wherein the promotions have starting dates and ending dates and the starting dates and the ending dates are used in adjusting the location specific-retail selling profile.

70. (Previously presented) The method of claim 65, wherein the promotions include advertising of the product.

71. (Previously presented) The method of claim 69, wherein the promotions include advertising of the product.

72. (Previously presented) The method of claim 65, wherein the promotions include a preferred display of the product.

73. (Previously presented) The method of claim 69, wherein the promotions include a preferred display of the product.

74. (Previously presented) The method of claim 65, wherein the promotions include a reduced price for the product.

75. (Previously presented) The method of claim 69, wherein the promotions include a reduced price for the product.

76. (Currently amended) A computer-implemented method of revising a plurality of retail location distribution shares for a particular product, taking into account planned promotions of the particular product, the computer-implemented method including :

collecting on machine-readable memory a multitude of retail location-product specific projected sales profiles that record daily or more frequent projected sales;

Art Unit: \*\*\*

maintaining on machine-readable memory a retail location promotions calendar that includes planning data that tracks promotion of the product at the retail location by effective dates and by type of promotion and a corresponding estimated systematic variation in sales caused by the type of promotion;  
repeatedly for a plurality of products across a plurality of retail locations,  
accessing a plurality of the projected sales profiles, by retail location, for a particular product;  
automatically adjusting the projected sales profiles to reflect sales lift from one or more promotions planned, by retail location, for the particular product and entered in the retail location promotions calendar;  
revising a plurality of location distribution shares based on the adjusted projected sales profiles.

77. (Original) The method of claim 76, wherein the promotions include advertising of the particular product.

78. (Original) The method of claim 76, wherein the promotions include a preferred display of the particular product.

79. (Original) The method of claim 76, wherein the promotions include a reduced price of the particular product.

80. (Currently amended) A computer-implemented method of revising a plurality of location distribution shares for a particular product, taking into account planned promotions of the particular product, the computer-implemented method including:

collecting on machine-readable memory a multitude of retail location-product specific projected sales profiles that record daily or more frequent projected sales;  
maintaining on machine-readable memory a retail location promotions calendar that includes planning data that tracks promotion of the product at the retail location by effective dates and by type of promotion and a corresponding estimated systematic variation in sales caused by the type of promotion;

Art Unit: \*\*\*

repeatedly for a plurality of products across a plurality of retail locations,  
accessing a plurality of the projected daily or more frequent sales  
profiles, by retail location, and a plurality of retail location distribution  
shares, for a particular product; and  
automatically adjusting the retail location distribution shares to  
reflect a weighted mix of the projected daily or more frequent sales  
profiles and an actual daily or more frequent sales; and  
storing to machine-readable memory the automatically adjusted  
retail location distribution shares.

81. (Original) The method of claim 80, wherein the actual daily or more frequent sales are for a group of products.

82. (Original) The method of claim 80, wherein the weighted mix is calculated using weight = [(actual sales / projected sales) \* (1 - factor)] + (factor).

83. (Original) The method of claim 82, wherein the factor selected is between 0.0 and 1.0.

84. (Original) The method of claim 80, wherein the weighted mix is calculated proportional to an elapsed period of sales.

85. (Original) The method of claim 80, wherein the weighted mix is calculated proportional to actual sales divided by projected sales.

86. (Withdrawn) A computer-implemented method of calculating quantities for distribution of a particular product to a plurality of locations, comprising:  
projecting daily or more frequent sales of a particular product;  
applying location distribution shares for a plurality of locations to the projected daily or more frequent sales; and  
calculating distribution quantities for a first shipping date for the plurality of locations sufficient to cover the locations' respective shares of the projected daily or more frequent sales from the first shipping date to a second shipment receipt date.
87. (Withdrawn) The method of claim 86, wherein the calculating step further includes adjusting the distribution quantities by a coverage index.
88. (Withdrawn) The method of claim 87, wherein the coverage index selected is between 1 and 3.
89. (Withdrawn) The method of claim 86, wherein a sum of the distribution quantities corresponds to distribution of a total buy quantity for the particular product.
90. (Withdrawn) The method of claim 86, wherein a sum of the distribution quantities corresponds to distribution of a selected quantity different from a total buy quantity for the particular product.
91. (Withdrawn) The method of claim 86, wherein presentation quantities are associated with at least a portion of the locations and the calculating step further includes increasing at least a portion of the distribution quantities to satisfy the presentation quantities.

Art Unit: \*\*\*

92. (Withdrawn) The method of claim 86, wherein the particular product is shipped in case lots and the calculating step further includes adjusting the distribution quantities to match the case lots.

93. (Withdrawn) The method of claim 91, wherein the particular product is shipped in case lots and the calculating step further includes adjusting the distribution quantities to match the case lots.

94. (Withdrawn) The method of claim 91, wherein the presentation quantity is reduced over a period of the projected sales.

95. (Withdrawn) The method of claim 86, wherein the calculating step further includes adjusting the distribution quantities to reflect stock on hand at or prior to the first distribution date.

96. (Withdrawn) The method of claim 86, wherein the location distribution shares in the applying step are based on historical data corrected for out of stock conditions in locations.

97. (Withdrawn) The method of claim 86, wherein a quantity of stock to be distributed is less than a sum of the distribution quantities, further including reducing the respective distribution quantities to not exceed the quantity of stock to be distributed.

98. (Withdrawn) A computer-implemented method of calculating quantities for distribution of a particular product to a plurality of locations, comprising:

projecting daily or more frequent sales of a particular product from a shipping date to a close out date;

scaling the projected daily or more frequent sales to substantially appropriate amounts of in-location and out-of-location inventory;

applying location shares for a plurality of locations to the scaled projected daily or more frequent sales;

Art Unit: \*\*\*

105. (Withdrawn) The method of claim 104, wherein the projecting sales step further includes calculating out of stock dates of the plurality of combinations.

106. (Withdrawn) The method of claim 104, wherein the projecting daily or more frequent sales step further includes correcting for out of stock conditions impacting data from which the projections are made.

107. (Withdrawn) The method of claim 104, wherein the projecting daily or more frequent sales step further includes correcting for promotions impacting data from which the projections are made.

108. (Withdrawn) The method of claim 104, wherein a user selects one or more mark down dates and one or more mark down percentages and the plurality of combinations are generated automatically.

109. (Withdrawn) The method of claim 104, wherein a user selects the plurality of combinations.

110. (Withdrawn) The method of claim 104, wherein a user selects the plurality of combinations from a predetermined set of combinations.

111. (Withdrawn) The method of claim 104, wherein the projecting step includes applying one or more predetermined rules to eliminate one or more of the plurality of combinations from consideration.

112. (Previously presented) The method of claim 1, wherein the retail location-product specific selling profile includes a group of retail locations selected to have similar sales patterns.

Art Unit: \*\*\*

113. (Previously presented) The method of claim 112, wherein the group is large enough to overcome random selling noise.



114. (Previously presented) The method of claim 1, wherein the retail location-product specific selling profile includes a group of products selected to have similar sales patterns.

115. (Previously presented) The method of claim 114, wherein the group is large enough to overcome random selling noise.

66. (Previously presented) The method of claim 65, further including storing the projected sales profile for the product.

67. (Previously presented) The method of claim 65, wherein the product has a time period for sales, further including truncating the location specific-retail selling profile to a time period the same length as the time period for sales.